

217/782-2113

JOINT CONSTRUCTION AND LIFETIME OPERATING PERMIT - NSPS SOURCES

PERMITTEE

Tonyan Brothers, Inc.  
Attn: James S. Tonyan  
5101 North Route 31  
Post Office Box 70  
Ringwood, Illinois 60072

<u>Application No.:</u> 01090052	<u>I.D. No.:</u> 111810AAE
<u>Applicant's Designation:</u> LINDEN LAKE	<u>Date Received:</u> September 25, 2001
<u>Subject:</u> Sand and Gravel Processing Plant	
<u>Date Issued:</u> May 31, 2002	<u>Operating Permit Expiration</u>
	<u>Date:</u> See Condition 1.
<u>Location:</u> Linden Lakes Sand & Gravel, Illinois Route 173, Hebron	

This permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission unit(s) and/or air pollution control equipment consisting of:

Jaw Crusher  
Wet Screen  
Portable Junior Crusher  
Junior Screen  
Cone Crusher  
Cone Screen  
Harper Screen  
11 Conveyors

pursuant to the above-referenced application. This permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This operating permit is effective only if the Permittee has complied with all standard conditions of the construction permit.
- b. Operation of the emission units included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.
- c. This operating permit shall expire 180 days after the Illinois EPA sends a written request for the renewal of this permit.
- d. This permit shall terminate if it is withdrawn or is superseded by a revised permit.
2. This permit allows the operation of the sand and gravel plant only after successful completion of the performance test as specified in Condition 16.

- 3a. The sand and gravel plant is subject to New Source Performance Standards (NSPS) for Nonmetallic Mineral Processing Plants, 40 CFR 60, Subparts A and OOO. The Illinois EPA is administering these standards in Illinois on behalf of the United States EPA under a delegation agreement.
- b. Particulate matter emissions from vents or stacks shall not exceed 0.05 gm/dscm (0.022 gr/dscf) and 7 percent opacity (40 CFR 60.672(a)).
- c. Fugitive emissions of particulate matter from screens (except from truck dumping), enclosed truck or railcar loading, and transfer points on belt conveyors shall not exceed 10 percent opacity, (40 CFR 60.672(b) and (d)).
- d. Fugitive emissions of particulate matter from the crushers (except from truck dumping), shall not exceed 15 percent opacity, (40 CFR 60.672(c) and (d)).
- e. Pursuant to 40 CFR 60.672(h), no owner or operator shall cause to be discharged into the atmosphere any visible emissions from:
  - i. Wet screening operations and subsequent screening operations and belt conveyors that process saturated material in the production line up to the next crusher.
  - ii. Screening operations and belt conveyors in the production line downstream of wet mining operations, where such screening operations, and belt conveyors process saturated materials up to the first crusher in the production line.
4. At all times the Permittee shall also, to the extent practicable, maintain and operate these sources, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.
5. Emissions and operation of the gravel plant shall not exceed the following limits:

<u>Emission Unit</u>	<u>Throughput</u>		<u>Emission Factor</u> (Lb/Ton)	<u>Control Efficiency</u> (%)	<u>PM Emissions</u>	
	<u>(T/Hr)</u>	<u>(T/Yr)</u>			<u>(Lb/Hr)</u>	<u>(T/Yr)</u>
Jaw Crusher	300	786,240	0.0007	--	0.21	0.3
Wet Screen	300	504,000	0.12	95	1.8	1.51
Junior Crusher	130	131,040	0.0007	--	0.1	0.1
Junior Screen	130	131,040	0.12	90	1.6	0.8
Cone Crusher	100	168,000	0.0007	--	0.1	0.1
Cone Screen	100	168,000	0.12	95	0.6	0.51
Harper Screen	150	151,200	0.12	90	1.8	1.0
Conveyors	300	786,240	0.029	90	0.9	1.14
Total					7.11	5.46

These limits define the potential emissions of particulate matter and are based on standard emission factors, high control efficiencies for the moisture content, and maximum throughput. Compliance with annual limits shall be determined from a running total of 12 months of data.

6. The moisture content of the sand and gravel as processed shall be at least 5% by weight so as to reduce emissions of particulate matter. The Permittee shall demonstrate compliance with this requirement by one of the following methods:
  - a. The moisture content of a representative sample of the sand and gravel taken at the jaw crusher shall be measured every third process operating day using the current version of ASTM Standard Test Method C566 for total evaporable moisture content. Compliance with this condition as it pertains to the sand and gravel from extraction to placement in storage piles may be presumed if the moisture content is at least 5%; or
  - b.
    - i. Water sprays shall be used at each emission unit as necessary, except when the ambient air temperature is less than or expected to be less than 35° F prior to the end of the operating day, to provide moisture that will reduce emissions of particulate matter.
    - ii. The water supply to the spray equipment shall be equipped with a metering device used to determine water usage for the control of particulate matter emissions.
    - iii. Inspections of water spray equipment and operation (such as leaking, adequate flow maintenance, clogging of flow lines, etc.) shall be performed at least once per week when the facility is in operation.
7. The Permittee shall perform visible emission readings for each of the sand and gravel storage piles every third process or shipping operating day. If the opacity of the visible emissions from any storage pile exceeds 10 percent, the surface of that storage pile shall be sprayed with water promptly, such that visible emissions are reduced below 5 percent, as verified by a subsequent visible emission reading taken the same operating day.
8. Fugitive emissions of particulate matter from the paved roads shall not exceed 10 percent opacity. The Permittee shall power flush with water all paved roadway surfaces on the site at least daily during facility shipping operation, except when the ambient air temperature is less than or expected to be less than 35°F prior to the end of the operating day; or alternatively, the Permittee shall sweep all paved roadway surfaces during shipping operation. Flushing or sweeping shall not be required during or within four hours following precipitation.
9. The Permittee shall not load more than 190 trucks in any 24-hour period.

10. The Permittee shall not simultaneously operate more than three front loaders for handling sand and gravel.
11. The Permittee shall control fugitive emissions of particulate matter from unpaved roadways regularly traveled by trucks, loaders, or mobile equipment transporting material within the processing area by use of one or more of the following measures during process operating days:
  - a. Application of water at least daily, except when the ambient air temperature is less than or expected to be less than 35°F prior to the end of the operating day, or during or within four hours following precipitation.
  - b. Application of calcium chloride, magnesium chloride, or another chemical dust suppressant in accordance with the supplier's guidelines, so as to achieve a minimum control efficiency of 85%.
- 12a. The term "process operating days" as used in this permit means facility operating days during which mining, crushing, screening, or handling of sand and gravel occurs for one hour or more.
  - b. The term "shipping operation" as used in this permit means ingress, loading, and egress of trucks hauling sand and gravel offsite.
13. No person shall cause or allow any visible emissions of fugitive particulate matter from any process, including any material handling or storage activity beyond the property line of the emission source, pursuant to 35 Ill. Adm. Code 212.301.
14. The Permittee shall notify the Illinois EPA as required by 40 CFR 60.7, including:
  - a. Commencement of construction.
  - b. Actual date of initial startup.
  - c. Expected date of commencing monitoring system performance demonstration.
- 15a. These sources may be operated for 180 days under this construction permit.
  - b. Performance tests shall be conducted within 60 days after each source achieves maximum production, but not later than 180 days after initial startup, using the methods specified in 40 CFR 60.675.
- 16a. Within 60 days after each source achieves maximum production, but not later than 180 days after initial startup pursuant to 40 CFR 60.675 and 60.8, the opacity from the affected facilities shall be measured during conditions which are representative of the maximum performance. The Illinois EPA may provide additional time for the performance of this

testing upon request from the Permittee which shows that it is not feasible to perform representative testing within 90 days.

- b. i. The following methods and procedures shall be used for opacity measurements.

USEPA Method 9, 40 CFR 60 Appendix A

- ii. A test shall consist of 30 sets of 24 consecutive observations.

- c. Opacity measurements shall be performed by a certified observer.

- d. The Illinois EPA shall be notified prior to these measurements to enable the Illinois EPA to observe these measurements. Notification of the expected date of the measurements shall be submitted to a minimum of thirty (30) days prior to the expected date. Notification of the actual date and expected time of measurement shall be submitted a minimum of five (5) working days prior to the actual date of the measurement. The Illinois EPA may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe the measurements.

- 17. The Permittee shall maintain monthly records of the following items:

- a. Amount of sand and gravel processed through each emission unit in Condition 5 (tons/month and tons/year);
- b. Operating logs for the water spray equipment, including dates, times of usage, and malfunction (time, date, and measures taken to correct);
- c. Moisture content test performed including date, location, and sample;
- d. Date and time of day for each cleaning of the paved roadway surfaces;
- e. Date and time of water or chemical suppressant application to unpaved areas and the identity and quantity of suppressant used;
- f. Dates of process operation;
- g. Dates of shipping operation; and
- h. Opacity reading measurements including date, time, and identity and location of emission source.

- 18. The transportation and assembly of the sand and gravel plant to a new location will require a new Construction and Operating Permit for the new location. This permit must be obtained prior to reassembling the plant at the new location.

19. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.
20. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
21. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Compliance Section (#40)  
P.O. Box 19276  
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
9511 West Harrison  
Des Plaines, Illinois 60016

22. Persons with lifetime operating permits must obtain a revised permit for any of the following changes at the source:
  - a. An increase in emissions above the amount the emission unit or the source is permitted to emit;
  - b. A modification;
  - c. A change in operations that will result in the source's noncompliance with conditions in the existing permit; or
  - d. A change in ownership, company name, or address, so that the application or existing permit is not longer accurate.

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If you have any questions on this, please call Tara T. Nguyen-Ede at 217/782-2113.

Donald E. Sutton, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

DES:TNE:psj

cc: Illinois EPA, FOS Region 1  
Lotus Notes